



**An Archaeological Assessment of  
the Proposed Kyle Seale Offsite Sewer Line,  
Bexar County, Texas**

by

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## **Abstract**

In October, 2005, an archaeological assessment was conducted along the route and easement for the proposed Kyle Seal Offsite Sewer Line. The research was done by Abasolo Archaeological Consultants, on behalf of Frost Geosciences and M. W. Cude, Engineers. Fieldwork included a 100% survey of the project, followed by the excavation of four backhoe trenches. No significant archaeological materials were found either on the surface or in buried contexts. It is recommended that no further archaeological work is warranted.

## **Introduction and Background**

Abasolo Archaeological Consultants (AAC), conducted Phase I archaeological investigations that included a pedestrian survey and backhoe testing at the Kyle Seale Offsite Sewer Line. Work was performed in early October 2005, and included a 100% pedestrian survey and backhoe testing of high probability landforms at intervals along the sewer line and easement right-of-way. Four backhoe trenches were excavated to insure that no significant buried archaeological deposits existed within the project area.

The work was carried out in accordance with the "Archeological Survey Standards for Texas" to insure that no archaeological or historical resources eligible for nomination to the National Register of Historic Places are damaged or destroyed due to the planned construction. The survey was conducted along the 3,200 linear feet of sewer line with a 25-foot permanent easement and an additional 50 feet of construction easement. This Phase I investigation was designed to detect and record any archaeological or historical component that may be present in the project area. The results of the fieldwork are presented below.

The survey area is located near the intersection of FM1560 and FM471 in western Bexar County (Figures 1, 2). The proposed pipeline crosses Culebra Creek, parallels it along the southern leg, and then turns towards FM471. The area is characterized by Lewisville Silty Clay soils, primarily the LvB series, a good soil for farming and on slopes of 1-3%. Dark gray brown soils are found from the surface to about 20 inches, and below that, is a limy brown clay, up to 17 inches thick. Some profiles of the Lewisville soils also have a reddish yellow clay (especially the nearby LvA series), and have a bedrock consisting of deep beds of water-rounded limestone cobbles (Taylor et al. 1991:25).

### **Archaeological Background**

Over 1,400 archaeological sites have been recorded in Bexar County. Nickels, et al. (2001) provides a good overview of the regional archaeology, and Shafer and Hester (2005a, 2005b) summarize local archaeology along Culebra Creek. No detailed overview will be presented here, but a brief summary is provided to frame the context of the investigation.

Bexar County sites span 11,500 years of human occupation of the region, from the late Ice Age into the Historic era. The local archaeological chronology extends the entire spectrum of human occupation in the greater San Antonio area, including the three major periods of Native American prehistory: Paleoindian, Archaic, and Late Prehistoric. The area also has a rich Spanish Colonial and Anglo/Hispanic heritage.

The Culebra Creek valley has a well documented prehistoric record extending back to at least 10,000 years. The Texas Archeological Site Atlas shows that three archaeological sites, 41BX708, 711, and 712 are located upstream on the south side of the creek approximately 1.5 kilometers west of FM 1560. Site 41BX708, which was recently partially excavated, contained an archaeological record extending from early Historic

Period times back to about 10,000 years ago. Prehistoric sites 41BX1422, 1423, and 1424 are located downstream between FM 1560 and Loop 1604. Excavations at site 41BX 126, located east of the project area where Loop 1604 crosses Culebra Creek, indicated that it was extensively occupied from about 2,000 to 5,000 years ago. Most recently, the Silver Oaks site recently investigated by AAC and Frost GeoSciences on the Silver Oaks Unit 5 subdivision across from, and several hundred meters up Culebra Creek from the Kyle-Seale project area on the north side of Culebra Creek from FM 1560. Given the rich archaeological history along this drainage, it was highly likely that ancient cultural materials, perhaps even buried archaeological deposits, would be found within the proposed offsite sewer line project.

Examples of investigated archaeological sites in Bexar County are discussed that covering the spectrum of Native American chronology. The earliest Paleoindian site thus far investigated is Pavo Real (41BX52) located at the Highway 1604 crossing of Leon Creek. This site yielded a substantial Clovis Period (11,500-10,800 years ago) occupation overlain by a Folsom Period (10,800-10,300 years ago) encampment (Collins et al., 2004).

Recent investigations at the Chandler Site, 41BX708, by the Southern Texas Archaeological Association's Field School on Culebra Creek, upstream from the current project, identified a Late Paleoindian component that dates approximately 9,000-10,000 years ago (McKenzie and Moses 2005). Early and Middle Archaic, and Late Prehistoric components also are present at the Chandler Site.

One of the most extensive investigations of a Middle Archaic site is 41BX126 at the juncture of Culebra Creek and Highway 1604 (Nickels et al., 2000). Not only did this study yield important information about Middle and Late Archaic components, but it also added significant knowledge to the formation processes for burned rock middens, one of the most common types of archaeological sites found in the San Antonio area.

Late Prehistoric components have been recognized at the Chandler Site (41BX708; McKenzie and Moses 2005). A possible Historic Indian occupation (post-1700) is also thought to have been present at that site.

## **Research Design**

In our project proposal submitted to Frost Geosciences, we stated that a 100% pedestrian survey would be conducted to fully inspect the area along the sewer line and within the construction easement. Any archeological material encountered was to be located using hand-held GPS units and plotted on the project map. Backhoe testing was to be performed to expose any buried components that might be encountered in the alluvial deposits along Culebra Creek. This is the quickest and most efficient method of testing for subsurface archaeological deposits. Fill from each trench was to be troweled and "eye-screened." Spot-screening using ¼ mesh would be done if necessary in evaluating a buried deposit. Profile sketches were to be made of one section of each trench and digital

will be taken for additional documentation. Field notes of the investigations are to be maintained for curation archives.

## **Field Investigations**

### **Surface Survey**

The initial fieldwork involved a survey of 100% of the pipeline route and adjacent right of way. This work was carried out by Thomas R. Hester and Steve Frost, accompanied during the survey by Damien Herrera, P.E. of M.W. Cude, Engineers. The pipeline had been staked and flagged, and this greatly facilitated full examination of the route. The north side of Culebra Creek has a very short leg of the line, and this area has been wholly disturbed by past pipeline construction and no cultural resources were found there.

The portion of the proposed line south of Culebra Creek runs generally northeast to southwest, before turning almost directly south as it runs toward Culebra Road (Figure 1). The segment of the line just south of the creek was disturbed some years ago by gravel mining. This has left a wide, shallow depression, and while there were scattered artifacts in the area, they were from totally mixed contexts.

When the route turns south, it runs through fields cleared many years ago (Figure 2). In this area, there was heavy vegetative cover (weeds, grasses) that often obscured the surface. However, one artifact (see Figure 3) was found near the corner of a field currently in use and there were several widely scattered flakes indicating prehistoric activities in the locale.

Based on the survey data, discussions of the route with Mr. Herrera and the surface occurrence of a few chipped stone artifacts, it was decided that the next step in the fieldwork would involve backhoe testing.

### **Backhoe Testing**

Following the surface survey, Hester and Frost carried out the excavation and recording of four backhoe trenches. Figure 1 shows their location along the proposed route. Backhoe Trenches 1-3 were the most important in terms of evaluating the nature of the cultural resources. A fourth was done in the old quarry area just to be certain that there were no intact buried deposits. This trench was quickly completed, as it immediately exposed large limestone and chert cobbles that constitute the bedrock in the area.

*Backhoe Trench 1* (Figure 4) was excavated on the southern part of the route, approaching FM 471. It is oriented east-west on the staked centerline (UTM Zone 14 0526856N, 3263422E). The north profile of the backhoe trench was cleaned for recording. From the surface to a depth of 70 cm, a blocky black silty clay was found,

containing scattered natural chert nodules, some calcareous inclusions, and rarely, *Rabdotus* land snails. Some of the chert nodules have been naturally fractured. However, two flakes from this upper deposit are known as “secondary cortex flakes,” resulting from the testing of cobbles by prehistoric flintworkers. Below, from 70-85 cm, there is a zone marking the transition from the black silty clay to an underlying dark, limy brown silty clay, with more calcareous nodules and few natural chert cobbles. Again, there were no cultural remains. Gravels began to appear at ca. 85 cm and the trenching was stopped.

*Backhoe Trench 2* (Figure 5) was north of Trench 1, located at UTM 0526875N, 3263488N. In this area, a crudely bifaced flake had been found during the survey (Figure 3, a). The backhoe trench revealed a black silty clay to a depth of 60 cm. This is similar to Backhoe Trench 1, but with less chert cobbles. A transition zone from 60-90 cm overlies a tan clay (90-105 cm below the surface). Below 105 cm., and exposed by the trench to a depth of 120 cm is a gravel deposit, containing rounded cobbles of limestone and chert surrounded by a light tan clay.

*Backhoe Trench 3* (Figure 6) was placed about 5 meters from Culebra Creek at the point where the southern leg bends to the east-northeast at the southern bank of the creek (UTM 0526911N, 3263569N). The soil profile generally replicates those at Backhoe Trenches 1 and 2. Two flakes were in the upper 30 cm, but were the only indication of any cultural debris. At the base of the trench are dense gravels, larger than those in Backhoe Trench 2, with lenses of pea-size gravel.

*Backhoe Trench 4* was a brief testing effort within the gravel mining area (Figure 1; UTM 052729N, 3263781E, on the centerline at CL6+00). We wanted to be certain that the quarrying had indeed removed any soil deposits, and after the first several buckets, we had exposed bedrock gravels of large, rounded cobbles of limestone and chert. In the vicinity of this backhoe trench were several flakes and a crudely chipped core or chopper (see Figure 3). All were from thoroughly mixed contexts as a result of earlier gravel quarrying.

Overall, the backhoe trenches revealed a stratigraphic profile fairly typical of the Lewisville soils (LvB and LvA). Very meager cultural evidence was seen, and there was absolutely no indication of buried deposits with research potential.

## Summary and Recommendations

The archaeological assessment carried out along the route of the Kyle Seale Offsite Sewer Line involved 100% surface survey, followed by the excavation of three backhoe trenches along the route on the south side of Culebra Creek. Aside from a few flakes and artifacts on the surface of the route, and a couple of flakes found in one backhoe trench, there is no substantial evidence of intensive use of the area by prehistoric or historic peoples. It is our recommendation that no further archaeological work is necessary at this project.

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